

QUARTERLY STATUS REPORT

DATE: 10/18/02

STREAMLINING PROJECT: Evaluation of Wildlife Crossing Structures on US Highway 93 Evaro to Polson—Phase 1: Pre-construction data collection and finalization of evaluation plan

ANTICIPATED PRODUCTS:

- Memo to Technical Design Committee on monitoring design considerations: delivered April 24, 2002
 - Animal-vehicle incident reporting system: deliverable October 31, 2002.
 - Field Methods and Safety Protocol Handbook: October 31, 2002.
 - Summary of literature and existing data: deliverable October 31, 2002.
 - Memo defining the Measures of Effectiveness: deliverable November 30, 2002.
 - Long-term Research and Monitoring Evaluation Plan: deliverable May 31, 2003.
 - Phase 1 Pre-construction Case Study: deliverable April 30, 2004.
 - Pre-construction field data summary report: deliverable May 31, 2004.
 - Pre-construction black bear movement and genetics study: deliverable July 31, 2004.
 - Final Synthesis Report of “Phase I: Pre-construction data collection and finalization of evaluation plan”: deliverable August 31, 2004.
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PLEASE PROVIDE THE STATUS OF ACTIVITIES AND PRODUCTS (E.G., PROJECT MILESTONES, DELIVERABLES, PRODUCT DISSEMINATION, RELEVANT DIVISION ACTIVITIES) FOR THE PROJECT IN THE APPROPRIATE SPACE(S) BELOW.

1. FIRST REPORTING PERIOD (10/01/01 – 12/31/01)

Division Contact: Dale Paulson

- Administrative discussions occurring throughout this period in order to establish contract. *No official activity to report: funds not yet under contract.*

2. SECOND REPORTING PERIOD (01/01/02 – 03/31/02)

Division Contact: Dale Paulson

- FHWA Streamlining program funding (\$250,000) and Montana Department of Transportation (MDT) match funds (\$62,500) contracted to Western Transportation Institute (WTI) at Montana State University (MSU) in March 2002 (Principal Investigator Amanda Hardy).

- **Activities:**

- On-going literature search.
- On-going discussions on research issues, direction, and potential partnerships with MDT research manager and district biologist, Confederated Salish and Kootenai Tribes (CSKT) tribal biologist, MSU and University of Montana (UM) Ecology/Wildlife Departments and GIS center, and private biological consulting firms.
- March 2002: Dr. John Borkowski, MSU statistician, is written into the contract. Dr. Borkowski will assist with study design and statistical analyses.
- March 2002: Scheduling and planning initial meeting with Research Oversight Committee (ROC) members.

3. THIRD REPORTING PERIOD (04/01/02 – 06/30/02)

Division Contact: Dale Paulson

- **Activities:**

- On-going literature search.
- On-going discussions on research issues, direction, and potential partnerships with MDT research manager and district biologist, Confederated Salish and Kootenai Tribes (CSKT) tribal biologist, MSU and UM Ecology/Wildlife Departments and GIS center, and private biological consulting firms.
- April 2-12, 2002: US 93 site reconnaissance meetings. Wildlife crossing structure sites visited, design concepts and issues discussed between stakeholders (FHWA, CSKT, MDT), contractor (Skillings-Connolly) and subs (Jones & Jones) and design firms. Monitoring considerations noted.
- April 15-16, 2002: Initial ROC meeting on project location. Research questions, direction discussed. Highlights: Pre- and post-construction road-kill rates will be examined on entire 56-miles of reconstructed road. Pre- and post-construction animal-crossing rates of US 93 focus on three sub-study areas: Evaro, Ravalli curve, Ravalli hills. Within these sub-study areas, species-specific research should be conducted on bears and deer if possible.
- June 2002: Dale Paulson secures an additional \$200,000 of FY 02 FHWA Streamlining Initiative funds, MDT provides \$50,000 match for additional products (black bear study, field protocol handbook, pre-construction decision-making process case-study). Contract and budget will be amended for this additional \$250,000 (for a total of \$562,500) once pre-construction methods are established.
- June 2002: Sub-contracted Dr. Chris Servheen, USFWS and Adjunct Faculty at UM, to oversee a masters thesis research project entitled, "Black bear crossing and use of sections of Highway 93 in the Evaro and Ravalli areas on the Flathead Indian Reservation, Montana"
- June 2002: Sub-contracted Garcia and Associates (GANDA), Biological Consultants, Bozeman, Montana, to assist with establishing pre-construction methodologies and implementation.

- June 2002: Obtained US 93 animal-vehicle crash database and animal carcass removal database from MDT.
- ***Products:***
 - Memo to US 93 Technical Design Committee on monitoring considerations to be incorporated into wildlife crossing structures and fencing designs (delivered April 24, 2002).

4. FOURTH REPORTING PERIOD (07/01/02 – 09/30/02)

Division Contact: Dale Paulson

- ***Activities:***
 - On-going literature search.
 - On-going discussions on research issues, direction, and potential partnerships with MDT research manager and district biologist, Confederated Salish and Kootenai Tribes (CSKT) tribal biologist, MSU and UM Ecology/Wildlife Departments and GIS center, and private biological consulting firms.
 - July 16, 2002: Environmental streamlining panel presentation on US 93 Wildlife Crossing Structure Research at AASHTO Research Advisory Committee meeting.
 - July-September 2002: Bi-monthly attendance of US 93 Technical Design Committee meetings to document process of decision-making for wildlife crossings and fencing design issues for case-study.
 - July-September 2002: On-going work with sub-contractor, GANDA, biologist to research pre-construction field methods. Established criteria by which to determine the pros and cons of methods. Methodologies considered and recommended were documented and draft report was distributed to ROC in August—as of September 30, 2002 the original recommendations are being revised and with ROC approval (beyond this reporting quarter) a pilot study of the recommended methods will occur this fall.
 - July 2002: Met Karin McCoy, UM masters candidate working with Dr. Servheen on the pre-construction black bear study to coordinate wildlife/motion-detection camera sites and traffic counter data collection efforts.
 - August 2002: Met MDT Maintenance foremen at Evaro and Ravalli areas to coordinate a carcass-pinflag protocol to mark places where MDT maintenance crews pick up road-killed animals. On-going effort by WTI or sub-contractor GANDA to retrieve pinflag and collect attributing data from carcass-pinflag sites.
 - August 2002: WTI hires research ecologist Dr. Marcel Huijser. Dr. Huijser will be written into the amended contract to assist on the US 93 project.

- August 2002: Met Kathy Griffin, UM PhD candidate doing turtle research related to US 93 reconstruction (separate research from this project with main funding through MDT and WTI scholarship support), to coordinate road-kill monitoring efforts and data collection protocol.
- August-September 2002: Sub-contractor GANDA set-up motion- and heat-triggered camera stations under the Montana Rail Link (MRL) bridge in the Evaro area to monitor pre-construction crossings of animals under US 93 via this existing structural underpass. GANDA/WTI maintained site and established database for resulting photos.
- August-September 2002: set up traffic counters in the Evaro and Ravalli areas. Established contact with Dan Bisom at MDT regarding traffic count data from the weigh-in-motion site between the Evaro and Ravalli areas.

Summary: Efforts to date have been to establish the pre-construction field monitoring methods. Many aspects of the pre-construction monitoring program are in place (bear study, camera sites under existing under-crossing structure, traffic counts, road-kill data collection protocol). The protocols for these data collection efforts are being refined and the databases and quality assurance/quality control systems are being established. The methodologies related to quantifying pre-construction animal crossings will be piloted once the ROC approves the concepts. With a viable method for estimating pre-construction animal crossings, WTI will then be able to finalize the budgets in order to amend the contract for the entire \$562,500 and integrate the field methods in their entirety to produce the pre-construction methodologies handbook.

The deliverable dates listed under the “Anticipated Projects” section were established in a document to FHWA to secure additional funding (see quarter 3 activities). Considering the pilot study of the methods to quantify pre-construction crossings has yet to begin, it is likely that these dates will need to be extended until the end of the 2002 calendar year. WTI would like to propose that the contract amendments reflect whatever dates that FHWA, MDT and WTI agree are reasonable.